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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/535,105	ARSENAULT ET AL.
	Examiner	Art Unit
	Ngoc K. Vu	2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _26 January 2006_.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-26_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-26_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____.

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Response to Arguments

1.   Applicant's arguments filed 1/26/06 with respect to claims 1-14 have been considered
but they are not persuasive.

Applicant merely argues that Herz does not teach mapping fuzzy variables onto at least
three dimensional profiles surface. This argument is not persuasive based on the following
reasons.

First, Herz teaches that a three-dimensional customer profile includes three
characteristic variables such as "Romance", "High-tech", and "Violence" (see col. 10, lines 15-
20; col. 22, lines 40-45; col. 41, lines 57-64). Applicant further asserts that their variable values
could form a single point in a three-dimensional space, but cannot form a three-dimensional
profile surface. However, this argument is not relevant to the recited limitation. According to the
specification, there are two input variables, i.e., Comedy and Romance, or any number of
different input variables could be used, thereby creating a multi-dimensional profile surface (see
specification: page 18, lines 8-14). From this view, Herz's customer profile is three-dimensional
customer profile since each of characteristics "Romance", "High-tech", and "Violence"
represents a variable.

Second, according to the specification, an example shows that an object with Romance
= 4 and Comedy = 8 would map to a desirability of six (see specification: page 24, lines 4-7).
From this view, calculating ac value includes the feature of associating the cp values with
characteristic variables "Romance", "High-Tech", and "Violence" in Herz's system. For example,
program Terminator II has cp values for "Romance" is 0.0 (Romance = 0.0), 10.0 for "High-
Tech" (High-Tech = 10.0), and 8.0 for "Violence" (Violence = 8.0). It is recognized that the
system calculates ac value as calculating "a first priority value". For example, program
Terminator II with Romance = 0.0, High-Tech = 10.0, and Violence = 8.0, the ac value is

determined as 0.429 for customer John. That means determining of ac value or "priority value"

for a customer based on cp values of a program. Herz further shows that it is evident that John

prefers "Terminator II" program because its ac value is the highest value from the agreement

matrix. This is the result that would have been determined from the profiles (see col. 22, lines

25-51). Accordingly, calculating ac value encompasses the feature of mapping the cp values

onto customer profile to determine "priority value".

Applicant further argues that Lazarus does not disclose or suggest mapping fuzzy

variables to an at least three dimensional profile surface. In response to applicant's arguments

against the references individually, one cannot show nonobviousness by attacking references

individually where the rejections are based on combinations of references. See *In re Keller*, 642

F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375

(Fed. Cir. 1986).

With respect to new added claims 15-26, the objection and rejection are addressed

below.

Claim Objections

2.   Claims 15, 18, and 21 are objected to because of the following informalities: the terms

"remaining dimension" are not previously recited in the claims, therefore, the terms "**the**

remaining dimension" are suggested to change into "a remaining dimension" or "one

dimension". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

4.   Claims 17, 20, 23, and 26 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Each claim recites the limitation "..wherein the level of the two or more input variables is

different than the level of the two or more input variables used to determine the first desirability".

It is unclear whether "level of the two or more input variables" for determining "second

desirability" is different than "level of the two or more input variables" for determining first

desirability not. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

6.   Claims 1-3, 5, 6, 9, 10, 12, 15, 16, 21, and 22 are rejected under 35 U.S.C. 102(e) as

being anticipated by Herz et al. (US 6,088,722 A).

Regarding claim 1, Herz discloses a method for selecting a first digital object (a

video/data program) display in an electronic television program guide:

receiving the first digital object (video/data program) from DBS (see col. 46, lines 54-56;

col. 42, lines 22-23; col. 48, lines 49-51 and figure 9);

determining first and second fuzzy variable values (cp values) associated with the first

digital object (determining first and second cp values associated with video/data program, for

example, cp values of program number 4 "Terminator II" from content profiles as shown in table

in column 21 are "0.0" for "romance", "10.0" for "high-tech" and "8.0" for "violence" – see

content profiles in col. 21 and col. 22, lines 25-35);

calculating a first priority value by mapping the first and second fuzzy variable values

onto an at least three dimensional profile surface (with three variables "Romance", "High-tech",

and "Violence") adapted for determining preferences associated with a television viewer (i.e.,

John) (For example, program Terminator II has cp values for "Romance" is 0.0 (Romance =

0.0), 10.0 for "High-Tech" (High-Tech = 10.0), and 8.0 for "Violence" (Violence = 8.0). It is

recognized that the system calculates ac value as calculating "a first priority value". For

example, program Terminator II with Romance = 0.0, High-Tech = 10.0, and Violence = 8.0, the

ac value is determined as 0.429 for customer John. That means determining of ac value or

"priority value" for a customer based on cp values of a program. Herz further shows that it is

evident that John prefers "Terminator II" program because its ac value is the highest value from

the agreement matrix. This is the result that would have been determined from the profiles (see

col. 22, lines 25-51). Accordingly, calculating ac value encompasses the feature of mapping the

cp values onto customer profile to determine "priority value". See col. 22, lines 40-45; col. 41,

lines 57-64);

comparing the first priority to a predefined threshold (comparing AC value to a

predefined threshold "1" – see col. 22, lines 26-57 and col. 24, lines 3-7); and

selecting the first digital object for display in the electronic television program guide if the

first priority crosses the predefined threshold (selecting the program if its AC value is the closest

to "1" for display in the program guide – see col. 22, lines 40-51; col. 24-3-7; col. 23, lines 51-64;

col. 26, lines 5-15; col. 42, lines 11-18; col. 47, lines 9-17).

Regarding claim **2**, Herz discloses setting the predefined threshold to the first priority

(from the agreement matrix, the program with highest AC value or the AC value most

approaching to "1" indicates that user most prefers that program, for example, user John prefers

program "Terminator II" since its AC value is 0.429 which most approaches to "1". In other

words, this feature includes setting the predefined threshold "1" to the AC value to determine the

program that user prefers - see table agreement matrix in column 22; col. 22, lines 47-51);

receiving a second digital object receiving the first digital object (video/data program)

from DBS (see col. 46, lines 54-56; col. 42, lines 22-23; col. 48, lines 49-51 and figure 9);

determining third and fourth fuzzy variable values (cp values) associated with the second

digital object (determining third and forth cp values associated with video/data program, for

example, cp values of program number 3 "Forever Young" from content profiles as shown in

table in column 21 are "8.0" for "romance", "3.0" for "high-tech", and "0.0" for "violence" – see

content profiles in col. 21 and col. 22, lines 25-35);

calculating a second priority value by mapping the third and forth fuzzy variable values

onto an at least three dimensional profile surface (with three variables "Romance", "High-tech",

and "Violence") adapted for determining preferences associated with a television viewer (i.e.,

Mary) (For example, program "Forever Young" has cp values for "Romance" is 8.0 (Romance =

8.0), 3.0 for "High-Tech" (High-Tech = 3.0), and 0.0 for "Violence" (Violence = 0.0). It is

recognized that the system calculates ac value as calculating "a first priority value". For

example, program "Forever Young" with Romance = 8.0, High-Tech = 3.0, and Violence = 0.0,

the ac value is determined as 0.774 for customer Mary. That means determining of ac value or

"priority value" for a customer based on cp values of a program. Herz further shows that it is

evident that Mary prefers "Forever Young" program because its ac value is the highest value

from the agreement matrix. This is the result that would have been determined from the profiles

(see col. 22, lines 25-51). Accordingly, calculating ac value encompasses the feature of mapping the cp values onto customer profile to determine "priority value". See col. 22, lines 40-45; col. 41, lines 57-64);

comparing the second priority to the predefined threshold (comparing AC value to the predefined threshold "1" – see col. 22, lines 26-57 and col. 24, lines 3-7); and

selecting the second digital object for display in the electronic television program guide if the first priority crosses the predefined threshold (selecting the program if its AC value is the closest to "1" for display in the program guide – see col. 22, lines 40-51; col. 24-3-7; col. 23, lines 51-64; col. 26, lines 5-15; col. 42, lines 11-18; col. 47, lines 9-17).

Regarding claim 3, Herz teaches displaying the first digital object in the television program guide (see col. 47, lines 9-13; col. 23, lines 50-64).

Regarding claim 5, Herz teaches selecting a number (highest AC value) based on the comparison between the first priority value and the predefined threshold, and associating the display of the first digital object with the selected number (display the program with highest AC value in the program guide - see col. 22, lines 47-51; col. 23, lines 51-64; col. 47, lines 9-18).

Regarding claim 6, Herz teaches that the program comprises an advertising (see col. 49, lines 37-40).

Regarding claim 9, Herz discloses an apparatus for displaying a first digital object (a video/data program) in an electronic television program guide comprising:

a receiver (within set top terminal) that receives the first digital object from DBS (see col. 46, lines 54-56; col. 42, lines 22-23; col. 48, lines 49-51 and figure 9);

a controller (906) for determining first and second fuzzy variable values (cp values) associated with the first digital object (determining first and second cp values associated with video/data program, for example, cp values of program number 4 "Terminator II" from content

profiles as shown in table in column 21 are "0.0" for "romance", "10.0" for "high-tech" and "8.0"
for "violence" – see content profiles in col. 21 and col. 22, lines 25-35), the controller calculating
a first priority value by mapping the first and second fuzzy variable values onto an at least three
dimensional profile surface adapted for determining preferences associated with a television
viewer (i.e., John) (For example, program Terminator II has cp values for "Romance" is 0.0
(Romance = 0.0), 10.0 for "High-Tech" (High-Tech = 10.0), and 8.0 for "Violence" (Violence =
8.0). It is recognized that the system calculates ac value as calculating "a first priority value". For
example, program Terminator II with Romance = 0.0, High-Tech = 10.0, and Violence = 8.0, the
ac value is determined as 0.429 for customer John. That means determining of ac value or
"priority value" for a customer based on cp values of a program. Herz further shows that it is
evident that John prefers "Terminator II" program because its ac value is the highest value from
the agreement matrix. This is the result that would have been determined from the profiles (see
col. 22, lines 25-51). Accordingly, calculating ac value encompasses the feature of mapping the
cp values onto customer profile to determine "priority value". See col. 22, lines 40-45; col. 41,
lines 57-64), the controller comparing the first priority value to a predefined threshold
(comparing AC value to a predefined threshold "1" – see col. 22, lines 26-57 and col. 24, lines 3-
7 and figure 9), and

a display (TV), the controller (906) causing the display to present the first digital object in
the electronic television program guide if the first priority crosses the predefined threshold
(presenting the program in the program guide if its AC value is the closest to "1" – see col. 22,
lines 40-51; col. 24-3-7; col. 23, lines 51-64; col. 26, lines 5-15; col. 42, lines 11-18; col. 47,
lines 9-17).

Regarding **claim 10**, Herz teaches the receiver is further adapted to receive a second

digital object from DBS (see col. 46, lines 54-56; col. 42, lines 22-23; col. 48, lines 49-51 and

figure 9);

the controller is further adapted to determine third and fourth fuzzy variable values

associated with the second digital object (determining third and forth cp values associated with

video/data program, for example, cp values of program number 3 "Forever Young" from content

profiles as shown in table in column 21 are "8.0" for "romance", "3.0" for "high-tech" and "0.0" for

"violence" – see content profiles in col. 21 and col. 22, lines 25-35); and

the controller is further adapted to determine the predefined threshold by mapping the

third and fourth fuzzy variable values onto the three dimensional profile surface (For example,

program "Forever Young" has cp values for "Romance" is 8.0 (Romance = 8.0), 3.0 for "High-

Tech" (High-Tech = 3.0), and 0.0 for "Violence" (Violence = 0.0). It is recognized that the system

calculates ac value as calculating "a first priority value". For example, program "Forever Young"

with Romance = 8.0, High-Tech = 3.0, and Violence = 0.0, the ac value is determined as 0.774

for customer Mary. That means determining of ac value or "priority value" for a customer based

on cp values of a program. Herz further shows that it is evident that Mary prefers "Forever

Young" program because its ac value is the highest value from the agreement matrix. This is the

result that would have been determined from the profiles (see col. 22, lines 25-51; col. 41, lines

57-64). That means the system determines the desirability by comparing the ac value with the

threshold "1". Accordingly, calculating ac value encompasses the feature of mapping the cp

values onto customer profile to determine "priority value".)

Regarding claim **12**, Herz teaches that the controller is adapted to select a number

(highest AC value) based on the comparison between the first priority value and the predefined

threshold, and associate the display of the first digital object with the selected number (display

the program with highest AC value in the program guide - see col. 22, lines 47-51; col. 23, lines 51-64; col. 47, lines 9-18).

Regarding claim **15**, Herz teaches that the customer profile comprises three input variables such as "Romance", "High-Tech", and "Violence", and desirability such as cp, sv, or wv value (see col. 21, lines 25-35; col. 9, lines 58-64; col. 11, lines 27-28). Accordingly, customer profile of Herz's system is three dimensional profile surface.

Regarding claim **16**, Herz teaches determining a first desirability value associated with two or more input variables, i.e., each of cp, sv, and wv values illustrates the level characteristics variables "Romance", "High-Tech", and/or "Violence" (see col. 21, lines 25-35; col. 9, lines 58-64; col. 11, lines 27-28).

Regarding claim **21**, Herz teaches that the customer profile comprises three input variables such as "Romance", "High-Tech", and "Violence", and desirability such as cp, sv, or wv value (see col. 21, lines 25-35; col. 9, lines 58-64; col. 11, lines 27-28). Accordingly, customer profile of Herz's system is three dimensional profile surface.

Regarding claim **22**, Herz teaches determining a first desirability value associated with two or more input variables, i.e., each of cp, sv, and wv values illustrates the level characteristics variables "Romance", "High-Tech", and/or "Violence" (see col. 21, lines 25-35; col. 9, lines 58-64; col. 11, lines 27-28).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herz et

al. (US 6,088,722 A) in view of Lemmons (US 6,481,011 B1).

Regarding claims **4 and 11**, Herz teaches comparison between the first priority value

(AC value) and the predefined threshold ("1") and displaying program in the program guide with

highlighting (col. 22, lines 26-57 and col. 24, lines 3-7; col. 47, lines 11-18). Herz does not

explicitly teach associating the display of the first digital object with a selected color based on

the comparison. However, Lemmons discloses associating the display of program information

with a selected color based on the comparison between the display priority criteria. The program

information may include the title of the program, a scheduled broadcast time, advertising

information ... etc. - see col. 9, lines 2-33; col. 3, lines 46-53). Therefore, it would have been

obvious to one having ordinary skill in the art at the time the invention was made to modify the

system of Herz by associating the display of program information with a selected color based on

the comparison between the display priority criteria as disclosed by Lemmons in order to

highlight programming of the type the user likes.

9.   Claims 7, 8, 13, 14, 18, 19, 24, and 25 are rejected under 35 U.S.C. 103(a) as being

unpatentable over in view of Herz et al. (US 6,088,722 A) in view of Lazarus et al. (US

5,652,613 A).

Regarding claim **7**, Herz teaches a method for selecting a first digital object (video/data

program) associated with an electronic television program guide, the method comprising:

receiving the first digital object (video/data program) from DBS (see col. 46, lines 54-56;

col. 42, lines 22-23; col. 48, lines 49-51 and figure 9);

determining first and second fuzzy variable values associated with the first digital object

(determining first and second cp values associated with video/data program, for example, cp

values of program number 2 "Damnation Alley" from content profiles as shown in table in

column 21 are "5.0" for "romance" and "0.0" for "high-tech" – see content profiles in col. 21 and

col. 22, lines 25-35);

calculating a first priority value by mapping the first and second fuzzy variable values

onto an at least three dimensional profile surface (with three variables such as "romance", "high-

tech" and "violence") ((i.e., John) (For example, program "Damnation Alley" has cp values for

"Romance" is 5.0 (Romance = 5.0), 0.0 for "High-Tech" (High-Tech = 0.0), and 1.0 for "Violence"

(Violence = 1.0). It is recognized that the system calculates ac value as calculating "a first

priority value". For example, program Terminator II with Romance = 5.0, High-Tech = 0.0, and

Violence = 1.0, the ac value is determined as 0.131 for customer John. That means determining

of ac value or "priority value" for a customer based on cp values of a program. Herz further

shows that it is evident that John least likes "Damnation Alley" program because its ac value is

the lowest value from the agreement matrix. This is the result that would have been determined

from the profiles (see col. 22, lines 25-51). Accordingly, calculating ac value encompasses the

feature of mapping the cp values onto customer profile to determine "priority value". See col. 22,

lines 40-45; col. 41, lines 57-64);

comparing the first priority value to a predefined threshold (comparing AC value to a

predefined threshold "0" – see col. 22, lines 26-57 and col. 24, lines 3-7).

As addressed above, Herz teaches that the programs having the AC values which

approach to "1" indicate that the viewer most prefers these programs so that they are selected

for display in the program guide. On the other hand, a program having the lowest AC value

which approaches to "0" indicates that the viewer least likes that program. For example, viewer

John prefers program number 4 and least likes program number 2 as shown in table agreement

matrix in column 22 and col. 22, lines 47-51.

Herz does not teach deleting program unlikely to be used from a memory or deleting the unused information from the memory. However, Lazarus discloses that a memory management system deletes the least valuable information to free memory space. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Herz by deleting the least valuable information or the unused information from the memory as taught by Lazarus in order to free memory space.

Regarding claim 8, Herz discloses setting the predefined threshold to the first priority (from the agreement matrix, the program with lowest AC value or the AC value most approaching to "0" indicates that user least prefers that program, for example, user John least prefers program "Damnation Alley" since its AC value is 0.131 which most approaches to "0". In other words, this feature includes setting the predefined threshold "0" to the AC value to determine the program that user least prefers - see table agreement matrix in column 22; col. 22, lines 47-51);

receiving a second digital object receiving the first digital object (video/data program) from DBS (see col. 46, lines 54-56; col. 42, lines 22-23; col. 48, lines 49-51 and figure 9);

determining third and fourth fuzzy variable values (cp values) associated with the second digital object (determining third and forth cp values associated with video/data program, for example, cp values of program number 3 "Forever Young" from content profiles as shown in table in column 21 are "8.0" for "romance", "3.0" for "high-tech", and "0.0" for "violence" – see content profiles in col. 21 and col. 22, lines 25-35);

calculating a second priority value by mapping the third and forth fuzzy variable values onto an at least three dimensional profile surface (with three variables such as "romance", "high-tech" and "violence") adapted for determining preferences associated with a television viewer (i.e., user "Mary") For example, program "Forever Young" has cp values for "Romance" is 8.0

(Romance = 8.0), 3.0 for "High-Tech" (High-Tech = 3.0), and 0.0 for "Violence" (Violence = 0.0).

It is recognized that the system calculates ac value as calculating "a first priority value". For

example, program "Forever Young" with Romance = 8.0, High-Tech = 3.0, and Violence = 0.0,

the ac value is determined as 0.774 for customer Mary. That means determining of ac value or

"priority value" for a customer based on cp values of a program. Herz further shows that it is

evident that Mary prefers "Forever Young" program because its ac value is the highest value

from the agreement matrix. This is the result that would have been determined from the profiles

(see col. 22, lines 25-51). Accordingly, calculating ac value encompasses the feature of

mapping the cp values onto customer profile to determine "priority value". See col. 22, lines 40-

45; col. 41, lines 57-64);

comparing the second priority to the predefined threshold (comparing AC value to the

threshold "1" – see col. 22, lines 26-57 and col. 24, lines 3-7); and

selecting the second digital object for display in the electronic television program guide if

the first priority crosses the predefined threshold (selecting the program if its AC value is the

closest to "1" for display in the program guide – see col. 22, lines 40-51; col. 24-3-7; col. 23,

lines 51-64; col. 26, lines 5-15; col. 42, lines 11-18; col. 47, lines 9-17).

Regarding claim **13**, Herz discloses an apparatus for displaying a first digital object (a

video/data program) in an electronic television program guide comprising:

a receiver (within set top terminal) that receives the first digital object from DBS (see col.

46, lines 54-56; col. 42, lines 22-23; col. 48, lines 49-51 and figure 9);

a controller (906) for determining first and second fuzzy variable values (cp values)

associated with the first digital object (determining first and second cp values associated with

video/data program, for example, cp values of program number 2 "Damnation Alley" from

content profiles as shown in table in column 21 are "5.0" for "romance" and "0.0" for "high-tech"

– see content profiles in col. 21 and col. 22, lines 25-35), the controller calculating a first priority value by mapping the first and second fuzzy variable values onto an at least three dimensional profile surface (with three variables such as "romance", "high-tech" and "violence") adapted for determining preferences associated with a television viewer (i.e., user "John") (For example, program "Damnation Alley" has cp values for "Romance" is 5.0 (Romance = 5.0), 0.0 for "High-Tech" (High-Tech = 0.0), and 1.0 for "Violence" (Violence = 1.0). It is recognized that the system calculates ac value as calculating "a first priority value". For example, program Terminator II with Romance = 5.0, High-Tech = 0.0, and Violence = 1.0, the ac value is determined as 0.131 for customer John. That means determining of ac value or "priority value" for a customer based on cp values of a program. Herz further shows that it is evident that John least likes "Damnation Alley" program because its ac value is the lowest value from the agreement matrix. This is the result that would have been determined from the profiles (see col. 22, lines 25-51). Accordingly, calculating ac value encompasses the feature of mapping the cp values onto customer profile to determine "priority value". See col. 22, lines 40-45; col. 41, lines 57-64), the controller comparing the first priority to a predefined threshold (comparing AC value to a predefined threshold "0" – see col. 22, lines 26-57 and col. 24, lines 3-7), and a memory (within the set top terminal) coupled to the controller (906) (see figure 9).

As addressed above, Herz teaches that the programs having the AC values which approach to "1" indicate that the viewer most prefers these programs so that they are selected for display in the program guide. On the other hand, a program having the lowest AC value which approaches to "0" indicates that the viewer least likes that program. For example, viewer John prefers program number 4 and least likes program number 2 as shown in table agreement matrix in column 22 and col. 22, lines 47-51.

Herz does not teach deleting program unlikely to be used from a memory or deleting the unused information from the memory. However, Lazarus discloses that a memory management system deletes the least valuable information to free memory space. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Herz by deleting the least valuable information or the unused information from the memory as taught by Lazarus in order to free memory space.

Regarding claim 14, Herz teaches the receiver is further adapted to receive a second digital object from DBS (see col. 46, lines 54-56; col. 42, lines 22-23; col. 48, lines 49-51 and figure 9);

the controller is further adapted to determine third and fourth fuzzy variable values associated with the second digital object (determining third and forth cp values associated with video/data program, for example, cp values of program number 1 "Star Trek" from content profiles as shown in table in column 21 are "2.0" for "romance" and "9.0" for "high-tech" – see content profiles in col. 21 and col. 22, lines 25-35); and

the controller is further adapted to determine the predefined threshold by mapping the third and fourth fuzzy variable values onto the profile surface (determining AC value by associating the cp values of the program with an at least three dimensional customer profile included three variables such as "romance", "high-tech" and "violence", then comparing AC value with threshold "0" - see col. 22, lines 40-45; col. 41, lines 57-64).

Regarding claim **18**, Herz teaches that the customer profile comprises three input variables such as "Romance", "High-Tech", and "Violence", and desirability such as cp, sv, or wv value (see col. 21, lines 25-35; col. 9, lines 58-64; col. 11, lines 27-28). Accordingly, customer profile of Herz's system is three dimensional profile surface.

Regarding claim **19**, Herz teaches determining a first desirability value associated with two or more input variables, i.e., each of cp, sv, and wv values illustrates the level characteristics variables "Romance", "High-Tech", and/or "Violence" (see col. 21, lines 25-35; col. 9, lines 58-64; col. 11, lines 27-28).

Regarding claim **24**, Herz teaches that the customer profile comprises three input variables such as "Romance", "High-Tech", and "Violence", and desirability such as cp, sv, or wv value (see col. 21, lines 25-35; col. 9, lines 58-64; col. 11, lines 27-28). Accordingly, customer profile of Herz's system is three dimensional profile surface.

Regarding claim **25**, Herz teaches determining a first desirability value associated with two or more input variables, i.e., each of cp, sv, and wv values illustrates the level characteristics variables "Romance", "High-Tech", and/or "Violence" (see col. 21, lines 25-35; col. 9, lines 58-64; col. 11, lines 27-28).

Allowable Subject Matter

10.   Claims 17, 20, 23, and 26 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

11.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,
however, will the statutory period for reply expire later than SIX MONTHS from the mailing date
of this final action.

Any inquiry concerning this communication or earlier communications from the examiner
should be directed to Ngoc K. Vu whose telephone number is 571-272-7306. The examiner can
normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the
organization where this application or proceeding is assigned is 571-273-8300. It is important to
note that Art Unit 2611 has been changed into Art Unit 2623.

Information regarding the status of an application may be obtained from the Patent
Application Information Retrieval (PAIR) system. Status information for published applications
may be obtained from either Private PAIR or Public PAIR. Status information for unpublished
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PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ngoc K. Vu
Primary Examiner
Art Unit 2623

March 31, 2006